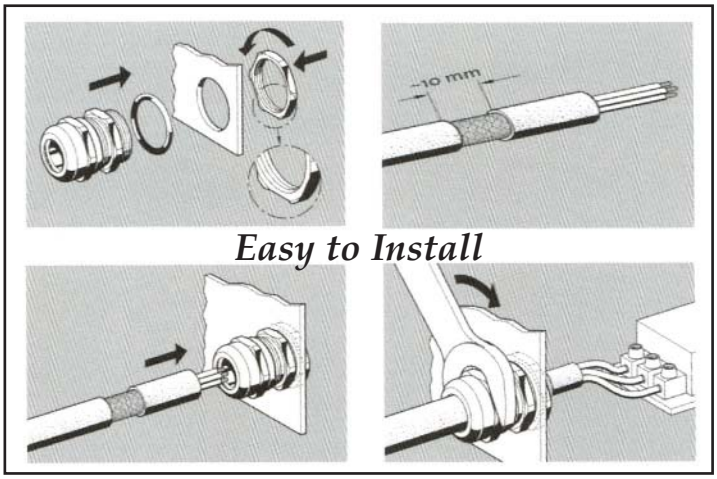
Avoid many drive problems with approved shielded cable and fittings.

Nelson Electric Supply Company, Inc.

LUTZE Systematic Technology

New Lutze EMC (Electro Magnetic Compatibility) fittings and Silflex® Variable Frequency Drive cable makes proper installation easy.

The fingers inside the fitting connect with the shielding on the cable to ensure a perfect connection.



Shielded PVC 0.6/1kV 4-conductor cable with (3) black (numbered) conductors, (1) green/yellow ground, (1) drain wire, and foil lining.

EMC fitting with integral "fingers" insures contact with cable shield.

Locknut with cutting teeth

Cable	Descrip	O.D. (mm)	Fitting	Thread	Range (mm)	Nut	Thread
A1161804	18 AWG 4C + Ground	9.7	FMM16-C2	16mm	5-10	LMM16-C	16mm
A1161604	16 AWG 4C + Ground	10.2	FMM20-C2	20mm	6-12	LMM20-C	20mm
A1161404	14 AWG 4C + Ground	11.4	FMM20-C2	20mm	6-12	LMM20-C	20mm
A1161204	12 AWG 4C + Ground	12.8	FMM25-C2	25mm	11-17	LMM25-C	25mm
A1161004	10 AWG 4C + Ground	16.7	FMM32-C2	32mm	15-21	LMM32-C	32mm
A1160804	8 AWG 4C + Ground	21.0	FMM40-C2	40mm	19-28	LMM40-C	40mm
A1160604	6 AWG 4C + Ground	24.3	FMM40-C2	40mm	19-28	LMM40-C	40mm
A1160404	4 AWG 4C + Ground	29.4	FMM50-C2	50mm	22-32	LMM50-C	50mm

Rockwell Automation recommends shielded cable between Variable Frequency Drives and Motors. See more info on Drive installation at:

http://literature.rockwellautomation.com/idc/groups/literature/documents/in/drives-in001_-en-p.pdf

Rockwell Automation recommends shielded cable between Variable Frequency Drives and motors.

Nelson Electric has put Lutze Silflex® shielded cable and fittings into inventory based on Dave Whitt's recommendation. Dave has been Nelson Electric's Drives and Motion Control application support person since 1986. Dave copied the following from white papers posted on *AB.com*. These are generic recommendations for all variable frequency drives, not specific to Allen-Bradley.

The following is an excerpt from Rockwell's "Wiring and Grounding Guidelines for Pulse Width Modulated (PWM) AC Drives"

…Since drives can create voltages well in excess of line voltage, the industry standard cables used in the past may not represent the best choice for customers using variable speed drives. Drive installations benefit from using cable that is significantly different than cable used to wire contactors and push buttons.

Shielded Cable

Shielded cable contains all of the general benefits of multi-conductor cable with the added benefit of a copper braided shield that can contain much of the noise generated by a typical AC Drive. Strong consideration for shielded cable should be given for installations with sensitive equipment such as weigh scales, capacitive proximity switches and other devices that may be affected by electrical noise in the distribution system. Applications with large numbers of drives in a similar location, imposed EMC regulations or a high degree of communications/networking are also good candidates for shielded cable. Shielded cable may also help reduce shaft voltage and induced bearing currents for some applications. In addition, the increased size of shielded cable may help extend the distance that the motor can be located from the drive without the addition of motor protective devices such as terminator networks. Refer to Chapter 5 for information regarding reflected wave phenomena. Consideration should be given to all of the general specifications dictated by the environment of the installation, including temperature, flexibility, moisture characteristics and chemical resistance. In addition, a braided shield should be included and specified by the cable manufacturer as having coverage of at least 75%. An additional foil shield can greatly improve noise containment.

The complete document is available for download at:
http://literature.rockwellautomation.com/idc/groups/literature/documents/in/drives-in001_-en-p.pdf

Another good reference is a Rockwell's white paper about installation considerations for Variable Frequency Drives which is available for download at:
http://ab.com/support/abdrives/documentation/techpapers/InstallationConsiderations01.pdf